

AUG 28 2006

Please AMEND the CLAIMS as follows:

1. (Currently Amended) In a backup cable modem termination system, a method of restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, the method comprising:

receiving subscriber information associated with one or more cable modems from an active cable modem termination system, the subscriber information including one or more subscriber identifiers;

prioritizing the cable modems using at least one of the subscriber information or a time of receipt of the subscriber information, the prioritized cable modems ~~subscriber information~~ indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

polling the cable modems in the order indicated by the prioritized cable modems, thereby enabling the transmission of messages between the one or more cable modems and the backup cable modem termination system to be restored ~~subscriber information~~.

2. (Currently Amended) The ~~method~~ backup cable modem termination system as recited in claim 34 ~~4~~, wherein at least one of the processor or the memory being further adapted for performing prioritizing and polling ~~are performed~~ in response to a failover trigger from the active cable modem termination system.

3. (Currently Amended) The backup cable modem termination system method as recited in claim 34 ~~1~~, at least one of the processor or the memory being further adapted for further comprising:

determining that the active cable modem termination system has failed;

wherein prioritizing and polling are performed after determining that the active cable modem termination system has failed.

4. (Original) The method as recited in claim 1, wherein the subscriber information identifies those modems that have ranged successfully.

5. (Original) The method as recited in claim 1, wherein receiving the subscriber information occurs after a specified period of time or after a call is received by the active cable modem termination system from one or more of the cable modems.

6. (Currently Amended) The backup cable modem termination system method as recited in claim 34 ~~1~~, at least one of the processor or the memory being further adapted for further comprising:

storing the subscriber information after receiving the subscriber information;

wherein prioritizing the cable modems ~~subscriber information~~ comprises prioritizing subscribers associated with the cable modems using the stored subscriber information.

7. (Original) The method as recited in claim 1, wherein the subscriber information associated with each of the cable modems comprises a primary subscriber identifier that identifies the associated cable modem.

8. (Original) The method as recited in claim 7, wherein the subscriber information further comprises a MAC address associated with the cable modem.

9. (Original) The method as recited in claim 7, wherein at least a portion of the subscriber information further comprises a secondary subscriber identifier.

10. (Original) The method as recited in claim 9, wherein the secondary subscriber identifier indicates that the messages to be transmitted between the backup cable modem termination system and the associated cable modem are to be transmitted in real-time.

11. (Original) The method as recited in claim 9, wherein the secondary subscriber identifier indicates whether the messages to be transmitted between the backup cable modem termination system and the associated cable modem include voice data or video data.

12. (Original) The method as recited in claim 9, wherein the subscriber information further comprises quality of service requirements.

13. (Original) The method as recited in claim 9, wherein at least a portion of the subscriber information further comprises a scheduling type.

14. (Original) The method as recited in claim 13, wherein the scheduling type indicates a type of real-time traffic to be transmitted.

15. (Original) The method as recited in claim 13, wherein the secondary subscriber identifier indicates that the messages to be transmitted between the backup cable modem termination system and the associated cable modem are to be transmitted in real-time.

16. (Original) The method as recited in claim 13, wherein the scheduling type indicates whether the messages to be transmitted between the backup cable modem termination system and the associated cable modem include voice data or video data.

17. (Currently Amended) The method as recited in claim 13, wherein the scheduling type is Unsolicited Grant Service UGS or Unsolicited Grant with Activity Detection UGS-AD.

18. (Currently Amended) The method as recited in claim 13, wherein prioritizing the cable modems subscriber information comprises:

searching the subscriber information associated with the cable modems for a secondary subscriber identifier; and

prioritizing each of the cable modems with subscriber information having a secondary subscriber identifier such that the cable modems with subscriber information having a secondary subscriber identifier ~~subscriber information~~ has ~~have~~ a higher priority than each of the cable modems with the subscriber information not having a secondary subscriber identifier;

19. (Currently Amended) The method as recited in claim 18, wherein prioritizing each of the cable modems with ~~the~~ subscriber information having a secondary subscriber identifier further comprises:

prioritizing each of the cable modems with ~~the~~ subscriber information having a secondary subscriber identifier according to the scheduling type.

20. (Currently Amended) The method as recited in claim 19, wherein prioritizing each of the cable modems with ~~the~~ subscriber information having a secondary identifier further comprises:

prioritizing each of the cable modems with ~~the~~ subscriber information having a secondary identifier according to time of receipt of the subscriber information from the active cable modem termination system.

21. (Currently Amended) The method as recited in claim 18, wherein prioritizing each of the cable modems with ~~the~~ subscriber information ~~not~~ having a secondary identifier further comprises:

prioritizing each of the cable modems with ~~the~~ subscriber information not having a secondary identifier according to time of receipt of the subscriber information from the active cable modem termination system.

22. (Currently Amended) The method as recited in claim 1, wherein prioritizing the ~~subscriber information~~ cable modems comprises:

storing the subscriber information and a time of receipt of the subscriber information by the backup cable modem termination system such that the subscriber information is associated with the time of receipt.

23. (Currently Amended) The method as recited in claim 22, wherein the ~~stored~~ subscriber information is stored in order of the time of receipt.

24. (Currently Amended) The backup cable modem termination system method as recited in claim 34 ~~1~~, at least one of the processor or the memory being further adapted for further comprising:

storing the subscriber information and a time of receipt of the subscriber information by the backup cable modem termination system such that the subscriber information is associated with the time of receipt.

25. (Currently Amended) The ~~method~~ backup cable modem termination system as recited in claim 24, at least one of the processor or the memory being further adapted for further comprising:

prioritizing the cable modems subscriber information according to the time of receipt of the corresponding subscriber information.

26. (Currently Amended) The ~~method~~ backup cable modem termination system as recited in claim 34 ~~1~~, further comprising:

after receiving the subscriber information, sending an acknowledgement of the subscriber information to the active cable modem termination system.

27. (Currently Amended) The backup cable modem termination system method as recited in claim 34 ~~1~~, at least one of the processor or the memory being further adapted for further comprising:

repeatedly receiving subscriber information associated with one or more cable modems from an active cable modem termination system prior to prioritizing the cable modems subscriber information.

28. (Currently Amended) The backup cable modem termination system method as recited in claim 27, at least one of the processor or the memory being further adapted for further comprising:

~~wherein receiving subscriber information comprises~~ receiving subscriber information associated with one or more cable modems from a first active cable modem termination system and receiving subscriber information associated with one or more cable modems from a second active cable modem termination system; and

wherein prioritizing the cable modems subscriber information comprises prioritizing the ~~subscriber information~~ cable modems associated with the first active cable modem termination system is performed separately from prioritizing the cable modems subscriber information associated with the second active cable modem termination system.

29. (Currently Amended) The backup cable modem termination system method as recited in claim 28, at least one of the processor or the memory being further adapted for further comprising:

storing information corresponding to the prioritized subscriber information cable modems associated with the first active cable modem termination system separately from information



corresponding to the prioritized subscriber information cable modems associated with the second active cable modem termination system.

30. (Currently Amended) The backup cable modem termination system method as recited in claim 34 1, at least one of the processor or the memory being further adapted for further comprising:

receiving an indication that an active cable modem termination system has failed;

determining an identity of the failed active cable modem termination system; and

wherein receiving subscriber information associated with one or more cable modems from the active cable modem termination system comprises obtaining the subscriber information associated with the failed active cable modem termination system.

31. (Original) The method as recited in claim 1, further comprising:

receiving an indication that a call initiated by one of the cable modems has been terminated; and

removing subscriber information associated with the one of the cable modems from memory associated with a previously failed active cable modem termination system.

32. (Currently Amended) A computer-readable medium storing thereon computer-readable instructions for performing a method in a backup cable modem termination system of

restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, comprising:

instructions for receiving subscriber information associated with one or more cable modems from an active cable modem termination system, the subscriber information including one or more subscriber identifiers;

instructions for prioritizing the cable modems using at least one of the subscriber information or a time of receipt of the subscriber information, the prioritized cable modems subscriber information indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

instructions for polling the cable modems in the order indicated by the prioritized cable modems subscriber information, thereby enabling the transmission of messages between the one or more cable modems and the backup cable modem termination system to be restored.

33. (Currently Amended) A backup cable modem termination system adapted for restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, comprising:

means for receiving subscriber information associated with one or more cable modems from an active cable modem termination system, the subscriber information including one or more subscriber identifiers;

means for prioritizing the cable modems using at least one of the subscriber information or a time of receipt of the subscriber information, the prioritized cable modems subscriber information indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

means for polling the cable modems in the order indicated by the prioritized cable modems subscriber information, thereby enabling the transmission of messages between the one or more cable modems and the backup cable modem termination system to be restored.

34. (Currently Amended) A backup cable modem termination system adapted for restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, comprising:

a processor; and

a memory, at least one of the processor or and the memory being adapted for:

receiving subscriber information associated with one or more cable modems from an active cable modem termination system, the subscriber information including one or more subscriber identifiers;

prioritizing the cable modems using at least one of the subscriber information or a time of receipt of the subscriber information, the prioritized cable modems subscriber information indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

polling the cable modems in the order indicated by the prioritized cable modems subscriber information, thereby enabling the transmission of messages between the one or more cable modems and the backup cable modem termination system to be restored.

Please ADD new claims as follows:

35. (Presently presented) The backup cable modem termination system as recited in claim 34, wherein prioritizing the cable modems comprises:

prioritizing the cable modems according to at least one of scheduling type identified in the subscriber information, presence of secondary subscriber identifier in the subscriber information, or time of receipt of the subscriber information by the backup cable modem termination system from the active cable modem termination system.